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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/562,369

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Peter John Hastwell

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EXAMINER

BHAT, NARAYAN KAMESHWAR

ART UNIT

PAPER NUMBER

1634

MAIL DATE

DELIVERY MODE

03/05/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No. 10/562,369	Applicant(s) HASTWELL ET AL.
Examiner NARAYAN K. BHAT	Art Unit 1634

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 27 January 2009 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☐ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 4 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☒ Applicant's reply has overcome the following rejection(s): 112 Second Paragraph.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: None.
Claim(s) objected to: None.
Claim(s) rejected: 1-27, 29-33 and 53-55.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____
13. ☒ Other: See Continuation Sheet.

/Ram R. Shukla/
Supervisory Patent Examiner, Art Unit 1634

Continuation of 11, does NOT place the application in condition for allowance because claims 1-8 have been rejected under 35 USC 103(a) being unpatentable over McEntee et al in view of Paolini et al. Claims 9-27 and 29-33 have been rejected under 35 USC 103(a) being unpatentable over McEntee et al in view of Montgomery and further in view of Paolini et al. Applicant's argument filed on January 27, 2009 have been fully considered, but are not persuasive for the following reasons.

Claim Objection

Applicants have overcome the previous claim objection to claim 29 by providing proper claim dependency.

Claim Rejection - 35 USC § 112 Second Paragraph

Applicants have overcome the previous rejection to claim 29 by providing proper claim dependency.

Claim Rejection - 35 USC § 103(a)

New claims 53-55 are obvious over McEntee et al in view of Paolini et al.

New claims 53, 54 and 55 are dependent from independent claims 1, 4 and 7 respectively. As described in the final office action in section 12, independent claims 1, 4 and 7 have been rejected being unpatentable over McEntee et al in view of Paolini et al. With regard to claims 53-55, Paolini et al teaches that the surfactant is anionic or non-ionic (paragraph 0041). Therefore, new claims 53-55 are obvious over McEntee et al and Paolini et al.

Applicants argue that McEntee et al do not teach of using any surfactant that does not significantly reduce the electrical conductivity of the insulative continuous phase (Remarks, pg. 12, paragraph 1). Applicants further argue that McEntee et al do not teach an insulative continuous phase that prevent the aqueous reactant discontinuous phase from "wetting" and subsequently depositing on the required site because of the lack of surfactant and accordingly teaches away from the use of any surfactants in its ionized droplets (Remarks, pg. 12, paragraph 1). These arguments are not persuasive because claims have been rejected under 103(a) using combination of references of McEntee et al and Paolini et al and surfactant in the emulsion is taught by Paolini et al. Applicants have also asserted that McEntee et al teaches the emulsion (pg. 11, paragraph 4). Furthermore, Applicant's arguments against the non-obviousness are based on by attacking references individually where the rejections are based on combinations of references as described above (See In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986)).

With regard to Applicant's argument that the use of surfactant that does not significantly reduce the electrical conductivity of the insulative continuous phase and the insulative continuous phase prevents the aqueous reactant discontinuous phase from wetting, it is noted that the features upon which applicant relies (i.e., electrical conductivity or wetting) are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims (See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993)). Since Applicant's arguments regarding McEntee et al teaching away from use of surfactant are based on the steps that are not claimed, arguments are not persuasive.

Applicants further argue that there is no reason to combine McEntee et al with Paolini et al and the alleged combination uses impermissible hindsight (Remarks, pg. 12, paragraph 2). This argument is not persuasive because it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper (See In re McLaughlin, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971)). In the instant case, McEntee et al are interested in moving droplets to the deposition site using an electric field (paragraph 0014). Paolini et al are also interested in moving droplets using electric field (paragraph 0008). Since both McEntee et al and Paolini et al are interested in moving droplets using electric field, it would be obvious to combine the references and therefore arguments are not persuasive.

Applicants further argue that Paolini et al uses emulsion for electrophoretic display and there is no teaching or suggestion that said emulsion could be for selective deposition (Remarks, pg. 12, paragraph 2). This argument is not persuasive because as describe above Applicants are arguing by attacking references individually, while the rejections are based on combination of references. Furthermore, as described in the final office action in section 12, Paolini et al teaches that the surfactant assists in stabilizing the droplet (paragraph 0041). McEntee et al teaches generation of droplets and controlling the volume of the droplet to deposit on the surface at predetermined location (paragraph 0015) and thus in need of stabilization of the droplet to deliver the chemicals to the deposition site in smaller volume. Having surfactant stabilized emulsion droplet of Paolini et al, McEntee et al are able to increase the number of arrays per unit area by depositing smaller droplets on the surface, thus meeting their long felt need for generating higher density array (e.g., McEntee et al paragraph 0015). Since Paolini et al provides teachings, suggestions and motivation to combine with the method of McEntee et al arguments are not persuasive.

Applicants further notes that Paolini et al uses gel emulsion and are an aqueous gel, which is not an electrically insulative continuous phase and therefore there is no link between Paolini and other cited references to combine and the combination of references is based upon impermissible hindsight and therefore rejections are improper (Remarks, pg. 12, paragraphs 3-4, pg. 13, paragraphs 1-4). These arguments are not persuasive for the same reasons as described above. Paolini teaches a plurality of embodiments including an emulsion comprising the preferred anionic or non-ionic surfactants (paragraph 0041) and therefore arguments based on Paolini et al teachings of a different embodiment not related to the embodiment used to combine with teachings of McEntee et al are not persuasive. Since McEntee et al in view of Paolini et al teaches recited steps of independent claims 1, 4 and 7 and therefore, they are obvious over the cited prior art and rejections are proper.

Applicants further argue that new claims 53-55 depend from independent claims 1, 4 and 7 respectively should be patented as well (Remarks, pg. 14, paragraph 1). This argument is not persuasive because as described above, limitation of new claims 53-55 are obvious over McEntee et al in view of Paolini et al and therefore are not patentable.

With regard to independent claim 9, Applicants reiterate the arguments regarding emulsion and surfactant (Remarks, pg. 14, paragraph 3). These arguments are not persuasive because as described above McEntee et al in view of Paolini et al teach emulsion with surfactant. Applicants further reiterate their arguments that McEntee et al teaches away from the use of surfactant in an emulsion and Montgomery does not overcome the deficiencies of McEntee and Paolini et al (Remarks, pg. 14, paragraph 3). These arguments are not persuasive because as described above McEntee et al in view of Paolini et al teaches emulsions as claimed. Contrary to Applicants assertion, as described in the final office action in section 13, teachings of Montgomery are utilized for functional groups on the substrate and chemical deprotection. Montgomery provides teachings, suggestions and motivation to combine with the method of McEntee et al and therefore arguments are not persuasive.

Applicants further argue that there are no teachings or suggestion of Montgomery to combine with McEntee et al (Remarks, pg. 14, paragraph 4). This argument is not persuasive because as described in the final office action in section 13, Montgomery provides teachings, suggestions and motivation to combine with McEntee et al to synthesize variety of chemical sequences that is cost effective and saving time (Montgomery, column 4, lines 28-38). Montgomery teaches synthesizing nucleic acids on the array and so also McEntee et al. Since both McEntee et al and Montgomery et al teach synthesizing nucleic acids, it would be obvious to combine the references and therefore arguments are not persuasive.

Applicants further argue that the solutions contemplated by Montgomery et al are aqueous solution and specifically teaches away from the invention in view of claimed property being an electrically insulative continuous phase (Remarks, pg. 14, paragraph 4). This argument is not persuasive because, teachings of Montgomery et al are used for the details of *in situ* synthesis that McEntee et al are silent about, viz., requiring specific functional groups on the substrate and deprotection mechanism. Furthermore, Paolini et al suggest that amount of surfactant in the emulsion (i.e., an aqueous reagent) is adjusted to stabilize the droplet (paragraph 0041), thus teaching emulsion modification as needed to stabilize the droplet. Therefore, Applicant's arguments based on attacking individual references are not persuasive, when the rejections of claim 9 are made over combination of references.

Continuation of 13. Other: Applicants have over come previous objection to claim 29 by providing proper dependency.